



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,295	12/31/2003	Peiguang Zhou	19924	9196
35844	7590	12/20/2007		
PAULEY PETERSEN & ERICKSON 2800 WEST HIGGINS ROAD HOFFMAN ESTATES, IL 60169			EXAMINER	
			STEELE, JENNIFER A	
			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			12/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/750,295

**Applicant(s)**

ZHOU ET AL.

**Examiner**

JENNIFER STEELE

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-13, 16-21, 23-25 and 35 is/are pending in the application.
- 4a) Of the above claim(s) 26-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13, 16-21, 23-25 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/2007 has been entered.

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embodiment as described in claims 1 comprising a facing layer, an adhesive layer, an elastic layer of continuous filament strands and one layer that comprises meltblown nonblocking agent must be shown or the feature(s) canceled from the claim(s). Fig. 2 as shown does not show the adhesive layer and shows a nonblocking agent layer and a meltblown elastic layer. Fig. 4 and Fig. 5 also do not show the embodiment as described in claim 1. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-5, 7-13, 16-21, 23-25, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "tightly adhere" in claim 1 is a relative term which renders the claim indefinite. The term "tightly adhered" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification describes that the nonblocking agent is tightly adhered to the elastic filaments and compares this to the level of adherence of the facing layer in paragraph [0089]. It is not clear if the difference in adherence is due to the facing layer being a gathered layer where portions of the

Art Unit: 1794

layer are not adhered at all or if the bonding strength of the meltblown nonblocking layer is greater than the bonding strength of the facing layer to the elastic filament layer.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claim 1-5, 7-13, 16-19, 24 and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Mleziva (US 6057024) in view of Schmidt (US 4460728) and Owen ("Release Agents", Encyclopedia of Polymer Science and Technology, Online Posting Date Oct. 22, 2001) and Benoit (US 4,833,017). Mleziva teaches a composite elastic material for use in end use products such as garments, pads, diapers and personal care products. Mleziva teaches a composite elastic material comprising a layer of continuous ribbon shaped filaments which are bonded to an extensible layer which may be a gatherable layer or a stretchable layer (ABST). Mleziva teaches an elastic nonwoven web of elastomeric ribbon-shaped elements and the extensible layer can be

joined at spaced apart locations when the web is in an elongated state to form a gatherable layer. Alternatively, Mleziva teaches the extensible layer may be an elastomeric and/or other stretchable layer that can be joined continuously to the elastomeric filament layer (col. 2, lines 13-25). The extensible nonwoven layer may be of materials such as meltblown polymeric webs, spunbonded webs and/or thermoplastic films (col. 2, lines 25-35). Mleziva teaches one embodiment wherein meltblown fibers are formed directly on top of the extruded elastomeric filaments or alternatively, a layer of elastomeric meltblown fibers may be deposited on a foraminous surface and rows of elastomeric filaments formed directly upon the elastomeric meltblown fibers. (col. 15, lines 1-15). Examiner equates the layer of meltblown fibers deposited on the elastomeric filaments with the claimed layer which comprises the meltblown nonblocking agent. Examiner equates teachings that the extensible layer, which can be of meltblown fibers, can be joined continuously to the elastic filament layer with the claimed layer of meltblown nonblocking agent is adhered tightly to the elastic layer forming a not gathered layer. Mleziva teaches the layers can be joined with an adhesive (col. 17, lines 19-57). Mleziva teaches adhesives such as a styrene-butadiene rubber-based adhesive applied at a layer amount 1-10 gsm (col. 17, lines 19-35). Mleziva differs from the current application and does not teach the open time for the adhesive and Mleziva does not teach a polypropylene adhesive. Mleziva differs from the current application and does not teach a meltblown antiblocking layer. Mleziva differs from the current application and does not teach layer weights.

Schmidt teaches hot melt adhesive that are adaptable for diaper applications. Schmidt teaches hot melt adhesives prepared from polypropylene with an open time of 5 to 10 seconds (col. 1, lines 49-51).

Benoit teaches a thermoplastic stretch wrap film with a non-cling, slide layer on one side and a cling layer on the other. Benoit teaches that the non-cling layer is produced of a LLDPE with an antiblock agent bonding to it (col. 4, lines 50-68). Benoit teaches the antiblock agent is a particulate powder that adheres to the film layer when hot. Benoit teaches the quantity of particulate powder can be experimentally calculated for a given film layer (col. 5, lines 1-5). Benoit teaches antiblocking agents that can be organic materials including polyethylene powders. Benoit teaches typical values for add on level is 0.01 to 1.0 % of the weight of the film/resin layer (col. 5, lines 5-10). As the current application teaches an elastic layer of 4-20 gsm, utilizing an antiblocking agent layer at an add on amount of 0.01 to 1% would be equal to an antiblocking layer weight of 0.04-2 gsm as claimed in the current application.

Owen teaches release agents are used to control and eliminate the adhesion of surfaces such as two plastic layers. Release agents expedite the industrial handling and processing of polymers such as calendaring, casting, embossing, extrusion, forming, labeling, laminating, machining, molding, packaging, protecting and transferring. Release agents function by either lessening intermolecular interactions between the two surfaces in contact or preventing such close contact and therefore can be low surface tension materials or they can be particulate solids. Classification of release agents includes polymers such as polyolefins such as polypropylene, silicones,

fluoropolymers and natural polymers such as cellophane. Owen teaches that polyolefin polymers such as polypropylene or polyethylene have surface tension property that would make a desirable release agent. Owen provides a teaching that the selection of a polymer type and/or solid can provide desirable release properties to a material or structure.

Mleziva teaches a stretch bonded laminate that can be comprised of a layer of elastomeric continuous filaments adhered with an adhesive to at least one gatherable layer. Mleziva teaches layered elastic laminates that have extensible layers that can be gathered or can be continuously bonded. Mleziva teaches that a meltblown layer can be formed one side of the elastic filaments. Mleziva differs and does not teach that the meltblown layer is a nonblocking layer or functions as the claimed layer of meltblown nonblocking agent. Mleziva differs from the current application and does not teach a meltblown layer with a nonblocking agent and Mleziva does not teach the open time of the adhesive. Schmidt teaches an adhesive with a low open time. Owen teaches the motivation to use a material that can function as a release agent. Benoit teaches a polyethylene nonblocking agent and the technique of adding a low level to achieve the desired slide or non-cling properties.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a low open time adhesive in the invention of Mleziva, motivated to improve the production of the laminate. It would have been obvious to employ a meltblown layer on the side opposite the facing layer that has non blocking properties motivated to produce a laminate that be rolled up for storage and unrolled for



use. Owen teaches materials that provide non-blocking properties and Benoit teaches the amount of non-blocking agent and therefore Owen and Benoit are findings in prior art that one of ordinary skill in the art would have recognized that the results of the combination were predictable.

As to claims 2-5, Mleziva differs from the current application and does not teach peel strength. Benoit teaches a film that has two sides, one that is a non-cling side and the other side that has cling. Benoit teaches a cling force that is a measure of how the film layer adheres to the other side of the film layer on the roll. Benoit teaches a cling force for the LLDPE resin film is about 160 gm. Benoit teaches adding a particulate anti-block agent which reduces the cling force to essentially nothing (col. 7, lines 33-49). The cling force (measured in grams) of Benoit is equated with the peel strength of the current application. It would have been obvious to produce a laminate with a layer comprising a non-blocking agent motivated to reduce the adhesion force between the layers when on a roll. When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention the examiner has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02

As to claims 7-13, Mleziva differs from the current application and does not teach the open time of the adhesive and does not teach a polypropylene type adhesive. Mleziva teaches using a styrene butadiene rubber based adhesive resin that can be spray coated at a basis weight of about 1-10 grams per square meter. Mleziva teaches

Art Unit: 1794

other adhesives and other application techniques may also be employed (col. 17, lines 20-34). Schmidt teaches hot melt adhesives prepared from polypropylene with an open time of 5 to 10 seconds (col. 1, lines 49-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the polypropylene adhesive of Schmidt in the laminate of Mleziva motivated to obtain the desired fabric and processing parameters that can be achieved with the a polypropylene adhesive.

As to claims 16-19, Mleziva differs from the current application and does not teach a meltblown nonblocking agent and does not teach the add-on level of the meltblown nonblocking agent. Benoit teaches the antiblock agent is a particulate powder that adheres to the film layer when hot. Benoit teaches the quantity of particulate powder can be experimentally calculated for a given film layer (col. 5, lines 1-5). Benoit teaches antiblocking agents that can be organic materials including polyethylene powders. Benoit teaches typical values for add on level is 0.01 to 1.0 % of the weight of the film/resin layer (col. 5, lines 5-10). As the current application teaches an elastic layer of 4-20 gsm, utilizing an antiblocking agent layer at the add-on amount of 0.01 to 1% would be equal to an antiblocking layer weight of 0.04-2 gsm. It would have been obvious to one of ordinary skill in the art to employ the technique of applying a non-blocking agent to a rolled laminate at the basis weight of 0.01-1% motivated to produce a laminate that can be rolled and unrolled without adhesion.

As to claim 24, Mleziva teaches a facing layer that can be a gatherable nonwoven layer made of materials such as meltblown polymeric webs, spunbonded webs and/or thermoplastic films (col. 8, lines 22-34).

Art Unit: 1794

4. Claim 20, 21 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Mleziva (US 6057024) in view of Schmidt (US 4460728) and Owen ("Release Agents", Encyclopedia of Polymer Science and Technology, Online Posting Date Oct. 22, 2001) and Benoit (US 4,833,017) and in further view of Quantrille (US 6506698). As to claims 20-21 and 23, Mleziva does not teach the basis weights for the nonwoven layers.

Quantrille teaches an extensible composite nonwoven fabric that can be comprised of layers of nonwovens and/or polyolefin film or filament. Quantrille teaches the layers are bonded together with adhesive. Quantrille teaches laminates with total basis weights of 19-22 gsm (col. 16, Table 4) wherein the laminate are produced of spunbond-meltblown-spunbond trilaminates. Wherein the total basis weights are about or less than 20 gsm, the individual layers would be less than 20 gsm.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ layers with basis weights in the range of 4-20 and 4-15 gsm motivated to produce a lightweight stretch bonded laminate as evidenced by Quantrille.

5. Claim 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Mleziva (US 6057024) in view of Schmidt (US 4460728) and Owen ("Release Agents", Encyclopedia of Polymer Science and Technology, Online Posting Date Oct. 22, 2001) and Benoit (US 4,833,017) and in further view of Shawver (US 6909028). Mleziva teaches a composite elastic material comprising a layer of continuous ribbon shaped filaments to which is bonded to a gatherable layer (ABST). The gatherable nonwoven layer may be of materials such as meltblown polymeric webs, spunbonded webs and/or

Art Unit: 1794

thermoplastic films (col. 8, lines 22-34). Mleziva differs from the current application and does not teach a facing layer that is necked.

Shawver teaches an elastic laminate for use as a barrier layer in diapers and personal care products. Shawver teaches a filled film adhered to an outer fibrous layer. The outer fibrous layer is a neckable elastic fabric having a basis weight between 10 – 70 g/m<sup>2</sup> (col. 10, lines 17-45).

It would have been obvious to one of ordinary skill in the art to employ a necked gatherable facing layer of Shawver to the composite elastic laminate of Mleziva motivated to produce an elastic material of the desirable stretchability personal care products and diapers.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claim 1-5, 7-13, 16-21 and 23-24 of this application conflict with claim 1, 9 and 12 of Application No. 11/011439. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claim 1-5, 7-13, 16-21 and 23-24 of this application conflict with claim 1-20 of Application No. 11/070307. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822

### ***Response to Arguments***

7. Applicant's arguments with respect to claim 1-5, 7-13, 16-21, 23-25 and 35 have been considered but are moot in view of the new ground(s) of rejection. Applicant's amended claims and therefore the previous 35 USC 103(a) rejection with respect to Mleziva in view of Mormon, Schmidt and Gage has been withdrawn.

8. Applicant's arguments with respect to claim 25 have been considered but are moot in view of the new ground(s) of rejection. Applicant's amended claims and

therefore the previous 35 USC 103(a) rejection with respect to Mleziva in view of Mormon, Schmidt and Gage and in further view of Shawver has been withdrawn.

9. Applicant's arguments with respect to the obviousness-type double patenting rejections with respect to Application Serial No. 11/011439 and 11/070307 are moot in view of new grounds of rejection presented in this office action. The obviousness double patenting rejections are maintained.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER STEELE whose telephone number is (571)272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./  
Examiner, Art Unit 1794

/Callie Shosho/  
Callie Shosho  
Supervisory Patent Examiner  
TC 1700, AU 1794

12/18/2007